United States Department of Agriculture
Food Safety And Inspection Service
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AUDIT REPORT FOR NEW ZEALAND

APRIL 3 THROUGH APRIL 30, 2002

INTRODUCTION

Background

This report reflects information that was obtained during an audit of New Zealand's meat inspection system from April 3 through April 30, 2002. Thirteen of the 73 establishments certified to export meat to the United States (U.S.) were audited. Nine of these were slaughter and processing (cutting and boning) establishments and four were conducting processing operations only.

The last audit of the New Zealand meat inspection system was conducted in May/June of 2001. Seventy-two establishments were certified for U.S. export at that time; nine of these were audited. The auditor found serious deficiencies regarding slaughter/processing controls in three establishments (ME15, ME32, and ME86). In Establishment ME15, the buccal cavity was washed after opening the cavity thus exposing the cut surfaces of edible product to ingesta. The anal cut was continued into other tissues without first sanitizing the knife. Poison rodent baits were located in the box storage room. In Establishment ME32, fecal contamination was observed on carcasses in the carcass cooler and there was urine contamination in Establishment ME86. Other major concerns reported at that time included:

1. Preventive action in the Sanitation Standard Operating Procedures (SSOPs) and Hazard Analysis and Critical Control Point (HACCP) programs was not recorded in almost all establishments visited.

2. The random selection of the carcasses for *Escherichia coli* (*E. coli*) and *Salmonella* testing was not done in almost all establishments visited.

All the above deficiencies were corrected at the time of this audit except HACCP-related documents in Establishment ME15 and ME86, which are mentioned in the HACCP Implementation section of this report.

During calendar year 2001, New Zealand establishments exported 492,076,930 pounds of beef, mutton, lamb and goat to the United States; 181,374,408 pounds of meat products were re-inspected; and 1,407, 320 pounds of meat products were rejected at the port-of-entry (POE) inspection. The causes of port-of-entry rejection were contamination, processing defects, missing shipping marks, transportation damage, labeling defects, pathological defects, and miscellaneous.

PROTOCOL

This on-site audit was conducted in four parts. One part involved visits with New Zealand national meat inspection officials to discuss oversight programs and practices, including enforcement activities. The second entailed an audit of a selection of records in the country's meat inspection headquarters facilities preceding the on-site visits. The third was conducted by on-site visits to establishments. The fourth was a visit to two laboratories performing analytical testing of field samples for the national residue testing program, and culturing of field samples for the presence of microbiological contamination.

New Zealand's program effectiveness was assessed by evaluating five areas of risk: (1) sanitation controls, including the implementation and operation of Sanitation Standard Operating Procedures (SSOPs), (2) animal disease controls, (3) residue controls, (4) slaughter/ processing controls, including the implementation and operation of Hazard Analysis and Critical Control Point (HACCP) systems and the *Escherichia coli (*E. *coli)* testing program, and (5) enforcement controls, including inspection system controls and the testing program for *Salmonella* species.

During all on-site establishment visits, the auditor evaluated the nature, extent, and degree to which findings impacted on food safety and public health, as well as overall program delivery. The auditor also determined if establishment and inspection system controls were in place. Establishments that do not have effective controls in place to prevent, detect and eliminate product contamination/adulteration are considered unacceptable and therefore ineligible to export products to the U.S., and are delisted accordingly by the country's meat inspection officials.

RESULTS AND DISCUSSION

Summary

Effective inspection system controls were found to be in place in all establishments audited, except one establishment, ME 117, which was temporarily suspended for exportation to United States by New Zealand authorities. After correcting the deficiencies, the establishment was again permitted to export. Details of audit findings, including compliance with HACCP, SSOP, and testing programs for *Salmonella* and generic *Escherichia coli (E. coli)* are discussed later in this report.

Entrance Meeting

On April 3, 2002, an entrance meeting was held in the Wellington offices of the Food Assurance Authority (FAA) of the Ministry of Agriculture and Forestry (MAF), and was attended by Dr. Tony Zohrab, Director, Animal Products; Dr. John Lee, Program Manager, Market Access, FAA; Dr. Roger Cook, National Manager (Microbiology) FAA; Mr. Neil Kiddey, Manager, Compliance and Investigation, FAA; Dr. Judi Lee, Program Manager,

Program Development Group, FAA; Dr. Chris Mawson, Agency Technical Manager, MAF Verification Agency (VA); Dr. Steve Ainsworth , Technical Specialist , MAF VA; Ms. Judy Barker, FAA; Ms. Susanna Barris, FAA; Mr. David Young, Agricultural Attache; U. S. Embassy and Dr. Suresh P. Singh, USDA International Audit Staff Officer. Topics of discussion included the following:

1. Finalization of the audit itinerary.

2. HACCP-equivalence and issues by Judi Lee.

3. Overview of the Animal Products Act 1999.

4. New Zealand officials stated that it was not possible to centralize the records of establishments that were to have a "records only" audit. However, the Compliance Investigation Group (CIG) and Veterinary Verification Agency of MAF agreed to get pertinent records by fax and mail and CIG files for the records audit at the MAF, Headquarters Office, Wellington.

5. The auditor was briefed regarding ratite equivalence issues and Risk Management Programs (RMP) initiated by MAF in all meat establishments.

Headquarters Audit

There had been no changes in the organizational structure or upper levels of inspection staffing since the last U.S. audit of New Zealand's inspection system in May/June 2001.

To gain an accurate overview of the effectiveness of inspection controls, FSIS requested that the inspection officials who normally conduct the periodic reviews for compliance with U.S. specifications lead the audits of the individual establishments. The FSIS auditor (hereinafter called "the auditor") observed and evaluated the process.

Establishment documents from 14 randomly selected establishments that were not scheduled for on-site visits were also audited. This records review was conducted at the inspection system headquarters in Wellington. The records review focused primarily on food safety hazards and included the following:

- Training records for inspectors and laboratory personnel.
- Label approval records and special label claims.
- New laws and implementation documents such as regulations, notices, directives and guidelines, and examples of how new requirements are communicated to field personnel.
- Sanitation Standard Operating Procedures, Hazard Analysis and Critical Control Points programs, generic *E.coli* and *Salmonella* testing programs.
- Control of products from livestock with conditions such as tuberculosis and cysticercosis, and of inedible and condemned materials.

- Export product inspection and control including export certificates.
- Enforcement records, including examples of criminal prosecution, consumer complaints, recalls, seizure and control of non-compliant product, and withholding, suspending, and/or withdrawing inspection services from or delisting an establishment that is certified for U.S. export.
- The national program for field sampling for microbiology and residue testing programs.
- Reports resulting from internal supervisory visits to establishments that were certified for U.S. export.
- Records generated in compliance with Pathogen Reduction requirements (SSOP, HACCP programs, generic *E. coli* testing and *Salmonella* testing).

The following concerns arose as a result the examination of these documents.

- Corrective and preventive actions are not being recorded consistently in the SSOP programs (Establishments 47 and 64).
- Flow charts in HACCP documents did not include all process steps in Establishments 30, 64, 82 and 124, and *E. coli* testing was not being recorded on a process control chart in Establishment 64.
- The Hazard analysis did not include the microbiological food safety hazard of fecal contamination, and did not specify Critical Control Points (CCPs) in the HACCP plans and critical control limits were not measurable in Establishments 64, 82 and 100.
- No pre-shipment document reviews were found for Establishments 27, 64, and 100.

Government Oversight

All inspection service veterinarians are MAF-Verification Agency employees and inspectors in establishments certified for U.S. export were ASURE employees, receiving no remuneration from either industry or establishment personnel for services rendered in the fulfillment of their national meat/poultry inspection duties. ASURE is a State Owned Enterprise of the Ministry of State Enterprises which provides inspection services on behalf of MAF FAA.

The Compliance Investigation Group (CIG) of MAF is a separate Division that carries out audits of New Zealand's inspection system and reports directly to the Director of Animal Products of MAF-FAA.

Establishment Audits

Seventy-three establishments were certified to export meat to the United States at the time this audit was conducted. Nine of these establishments were randomly selected to be visited for on-site audits and four were included in the on-site visits because of their re-review status. With the exception of Establishment ME-117, which was suspended by New Zealand

officials and re-certified after the deficiencies were corrected during this audit, in all of the 13 establishments visited, both MAF inspection system controls and establishment system controls were in place to prevent, detect and control contamination and adulteration of products. Details of the audit findings are discussed in the Slaughter/Processing Controls section of this report.

Laboratory Audits

During laboratory audits, emphasis was placed on the application of procedures and standards that were equivalent to U.S. Information was also collected about the risk areas of government oversight of accredited, approved, and private laboratories; intra-laboratory quality assurance procedures, including sample handling; and methodology.

The Agri-Quality New Zealand Ltd. Laboratory, formerly the National Chemical Residue Laboratory in Upper Hutt, Wellington, was audited on April 9, 2002. Effective controls were in place for sample handling, sampling frequency, timely analysis, data reporting, analytical methodologies, tissue matrices for analysis, equipment operation and printouts, detection levels, recovery frequency, percent recoveries, intra-laboratory check samples, and quality assurance programs, including standards books and corrective actions. The methods used for the analyses were acceptable. No compositing of samples was done (this was not a deficiency).

New Zealand's microbiological testing for *E. coli* and *Salmonella* was being performed in private laboratories. One of these, the Agri-Quality New Zealand Ltd. Laboratory in Auckland, was audited. The methods used for the analyses were acceptable. The auditor determined that the system met the criteria established for the use of private laboratories under FSIS's Pathogen Reduction/HACCP rule.

These criteria are:

1. The laboratory is accredited/approved by the government, accredited by third party accrediting organization with oversight by the government, or a government contract laboratory.
2. The laboratory has properly trained personnel, suitable facilities and equipment, a written quality assurance program, and reporting and record-keeping capabilities.
3. Results of analyses are being reported to the government or simultaneously to the government and establishment.

Establishment Operations by Establishment Number

The following operations were being conducted in the 13 establishments audited on-site:

Establishments ME34, ME42, and ME86: beef and sheep slaughter and boning
Establishments ME15, ME32, ME 52, ME70, and ME 119: beef slaughter and boning

Establishment ME117: ratite, bovine and equine slaughter and boning
Establishment PH 353: sheep, goat and deer boning
Establishment PH 490: veal (calf) cutting and boning
Establishment PH 504: sheep and goat-cutting and boning
Establishment PH 173: beef and sheep cutting and boning

SANITATION CONTROLS

Sanitation Standard Operating Procedures (SSOP)

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for SSOP were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment A).

The SSOP were found to meet the basic FSIS regulatory requirements with the following exceptions:

1. During the document review, it was noted that corrective action and preventive actions were not documented in Establishments ME47 and ME64.
2. During on-site visits of establishments, it was observed that corrective actions were not properly recorded in Establishments ME42 and ME86.

ANIMAL DISEASE CONTROLS

With the exception stated below, New Zealand's inspection system had controls in place to ensure adequate animal identification, ante-mortem and post-mortem inspection procedures and dispositions, condemned and restricted product control, and procedures for sanitary handling of returned and rework product.

1. Procedures for condemned product control were lacking in Establishment ME-117. Inedible material was not adequately denatured, containers for inedible and condemned product were cracked and leaking and the key to the condemned product room was not kept by an authorized person of the establishment.

There were reported to have been no outbreaks of animal diseases with public-health significance since the previous U.S. audit.

RESIDUE CONTROLS

New Zealand's National Residue Testing Plan for 2002 was being followed and was on schedule. The New Zealand inspection system had adequate controls in place to ensure compliance with sampling and reporting procedures and storage and use of chemicals.

SLAUGHTER/PROCESSING CONTROLS

Except as noted below, the New Zealand inspection system had controls in place to ensure adequate product protection and processed product control:

1. Establishment ME-42: The floor was not being cleaned often and therefore there was an accumulation of inedible product on the floor in the beef boning room. Peeling paint on the walls of the beef boning room was observed. In numerous locations, motors for conveyor belts were installed above the belt without any bottom tray or cover creating a potential source of contamination of products. Cross contamination of beef carcasses from the cooler door was observed.
2. Establishment PH-490: The boot wash facility was located inside the boning room close to the cutting table. A chemical used in the boot washing machine was not food grade chemical according to New Zealand officials. This created a potential for aerosol contamination of edible product.
3. Establishment PH-504: Used equipment and other metal junk material were stored close to the outside walls of establishment buildings, creating the potential for rodent harboring.

HACCP Implementation

All establishments approved to export meat products to the U.S. are required to have developed and implemented a Hazard Analysis – Critical Control Point (HACCP) system. Each of these systems was evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment B).

The HACCP programs were found to meet the basic FSIS regulatory requirements with the following exceptions:

During document review, it was noted that:

- Flow charts in HACCP documents did not include all process steps in Establishments 30, 64, 82 and 124.
- The hazard analysis did not include the microbiological food safety hazard of fecal contamination, did not specify Critical Control Points (CCPs) in the HACCP plans and critical control limits were not measurable in Establishments 64, 82 and 100.
- No pre-shipment document reviews were found for Establishments 27, 64, and 100.

During the on-site audits, it was observed that the contents of the HACCP plan did not list food safety hazards of microbiological (fecal) contamination in slaughter establishments (ME: 15, 42, 70, 86, and 117) and critical control points, critical limits, and corrective actions in Establishments ME: 15, 42, 70, 86, and 117 were not a part of HACCP programs. Fecal contamination in these slaughter establishments was identified as a hazard separate from the HACCP plan.

- Verification, validation and reassessment of HACCP plans were not recorded adequately in Establishments 32, 70 and 86.
- The boning establishments were found not to have any CCP; a hazard analysis was done but no hazards were identified. This was a repeat finding from the last audit.

Testing for Generic *E. coli*

New Zealand has adopted the FSIS regulatory requirements for *E. coli* testing with the exception of the following equivalent measures:

1. GENERIC *E. COLI* TESTING STRATEGY: Frequency of Testing. The criteria used for equivalence decisions for determining whether a different testing frequency for generic *E. coli* testing is equivalent are:
   - Testing frequency is based on production volume with at least one test per week.
   - The predominant class of animals slaughtered in an establishment is sampled.

2. SAMPLING SITES: Location of Sampling Sites. The criteria used for making equivalence decisions for determining whether different sample sites for *E. coli* testing is equivalent are:
   - The sample sites include the sites most likely to be contaminated with fecal contamination including the flank, brisket, and outside hind leg.
   - The sample sites encompass a large enough surface area to ensure that the effectiveness of the slaughter process controls will be evaluated.
   - The sample sites provide the same probability of detecting the presence of fecal contamination as the sites chosen by FSIS.

3. SAMPLING TOOLS. The criteria used for making equivalence decisions for approval of alternative sampling tools for sampling for *E. coli* are:
   - The tool is a traditional generally recognized sample collection tool for sampling for *E. coli* on meat or poultry surfaces.
   - The tool is sensitive enough to gather *E. coli* present on the sample site.
   - The tool does not contaminate the surfaces of the carcass.

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Eight of the establishments audited were required to meet the basic FSIS regulatory requirements for generic *E. coli* testing, and were audited and evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument used accompanies this report (Attachment C).

The *E. coli* testing programs were found to meet the basic FSIS regulatory requirements except that testing results were not being recorded in chart form in Establishment ME-64.

Additionally, establishments had adequate controls in place to prevent meat products intended for New Zealand domestic consumption from being commingled with products eligible for export to the U.S.

ENFORCEMENT CONTROLS

Inspection System Controls

New Zealand's inspection system controls [ante- and post-mortem inspection procedures and dispositions, control of restricted product and inspection samples, control and disposition of dead, dying, diseased or disabled animals, boneless meat reinspection, shipment security, including shipment between establishments, prevention of commingling of product intended for export to the United States with domestic product, monitoring and verification of establishment programs and controls (including the taking and documentation of corrective actions under HACCP plans), inspection supervision and documentation, the importation of only eligible livestock or poultry from other countries (i.e., only from eligible countries and certified establishments within those countries), and the importation of only eligible meat or poultry products from other countries for further processing] were in place and effective in ensuring that products produced by the establishment were wholesome, unadulterated, and properly labeled. In addition, adequate controls were found to be in place for security items, shipment security, and products entering the establishments from outside sources.

Testing for *Salmonella* Species

Nine of the establishments audited were required to meet the basic FSIS regulatory requirements for *Salmonella* testing, and were evaluated according to the criteria employed in the U.S. domestic inspection program. The *Salmonella* testing programs were found to meet the regulatory requirements with equivalent measures. The data collection instrument used accompanies this report (Attachment D).

New Zealand has adopted the FSIS regulatory requirements for *Salmonella* testing with following equivalent different requirements:

1. SAMPLE COLLECTOR: Establishment Takes Samples.
    - MAF develops a written, national sampling plan and enforces a national *Salmonella* testing program for sample collection and processing that is followed in all New Zealand establishments that export meat products to the United States.
    - Sample collection procedures are directly reviewed via specific tasks that are assigned to a trained on- site veterinarian from MAF Verification Agency. The accredited laboratory and MILAB, which is now administered within the New Zealand Food Safety Authority (NZFSA), are also responsible for ensuring correct sampling procedures. Under the MILAB Scheme laboratory International Accreditation New Zealand accredits laboratories in accordance with ISO standards. MAF Food (Compliance) performs periodic audits of MILAB and MAF Verification, including the oversight and monitoring activities of the sample collector. MAF Food (Animal Products) has mandatory access to all microbiological test results, including *Salmonella* test results. The on-site MAF Verification Agency Veterinarian also has direct access to all *Salmonella* test results.

- MAF uses *Salmonella* test results to monitor the performance of each establishment over time.
- The government of New Zealand (MAF) takes immediate action any time an establishment fails to meet a *Salmonella* performance standard.

2. LABORATORIES: Private laboratories analyze samples.
   - The laboratories are government, independent non-government, or establishment laboratories that MILAB, administered within NZFSA, accredits. MILAB, in turn, is audited BI-annually by MAF Food (Compliance). MAF Food (Animal Products) sets MILAB standards. All laboratories are assessed to ISO 25 standards. MILAB accreditation and responsibilities are audited bi-annually and at the request of MAF Food (Animal Products) by MAF Food (Compliance). The Inter-Laboratory Comparison Program is a government program that conducts monthly proficiency tests with each accredited laboratory and is accredited to ISO 9000 and ISO Guide 43. The accreditation program is mandated, established, and regulated by MAF Food (Animal Products).
   - All accredited laboratories have a formal program which ensures that laboratory personnel are properly trained, that there are suitable facilities and equipment, that there is a written quality assurance program, and that there are adequate reporting and record-keeping facilities.
   - Test results are reported directly to MAF inspection personnel and it was observed that test results were also reported to the establishment.

3. SAMPLING TOOLS.
   - The swab tool method of sample collection is used. The swab tool is an internationally recognized sample collection tool for sampling Salmonella on meat or poultry products, is sensitive enough to gather an adequate quantity of the *Salmonella* that are present at the sample sites, and does not contaminate surfaces of the carcasses.

4. SAMPLING TECHNIQUES: Time of Collection of Samples.
   - Samples are taken at the end of the slaughter or production process from the same carcass (one side for *E. coli* and one side for *Salmonella)* and prior to the carcass being cut and/or packaged.

<u>Species Verification</u>

At the time of this audit, New Zealand was not exempt from the species verification-testing requirement. The auditor verified that species verification was being conducted in accordance with FSIS requirements.

<u>Monthly Reviews</u>

Supervisory reviews of certified establishments are conducted by the MAF Compliance and Investigation Group (CIG), by the MAF Verification Agency (VA), and by the local office

veterinary supervisors. CIG audits occur anywhere from quarterly to annually and are supervisory verification audits conducted by the National office or by Regional Authority Compliance Officers. VA reviews are inspector reviews and are conducted by Regional Review Officers. VA reviews are also performance based and range from twice every month to once every three months. Veterinary supervisors conduct non-routine audits as needed.

Although monthly supervisory visits are not required or intentional, some type of verification or supervisory audit or review was conducted on a monthly basis in 12 of 13 establishments. In Establishment ME-119, no review or audit was performed during one three month period. The use and follow-up actions generated by each visit was not determined during this audit.

Enforcement Activities

Prosecution details are in Compliance Investigation Group (CIG) files. CIG reports all cases to Prosecuting Officials of MAF under Meat Act of 1981 and the Animal Products Act of 1999.

There are two pending cases at the present time:

1. Illegal possession and sale of uninspected meat and poultry
2. Bobby calf residue violation.

Exit Meetings

An exit meeting was conducted in Wellington on April 30, 2002. The participants included Dr. Tony Zohrab, MAF Director Animal Products; Dr. Roger Cook, MAF Microbiology; Dr. Geoff Allen, MAF compliance Director; Dr. Chris Mawson, MAF VA Director; MAF; Mr. Neil Kiddey, MAF Compliance; Ms. Judy Barker, Program Manager, Risk Management, MAF; Dr. Judi Lee, Program Manager (Program Development), MAF; Dr. John Lee, Program Manager (Market Access); Dr. Phil Ward, MAF Europe; Ms. Susanna Barris, MAF; Mr. Owen Symmans, Meat Industry Association; Mr. David Young, Agriculture Attaché; Mr. Stephen Benson, Agriculture Analyst; U.S.Embassy, Wellington: and Dr. Suresh P. Singh, USDA International Audit Staff Officer.
The following topics were discussed:

1. Observations and findings of establishments and deficiencies. The records-only audits revealed several points regarding HACCP programs. A hazard analysis was done but revealed no hazards. There was a discussion about fecal zero tolerance not being included in the HACCP plans of establishments.
2. The frequency of monitoring of CCPs was not included in the main HACCP plans but referred to SSOP and GMPs.
3. Re-assessment of HACCP plans was not annually recorded in the establishments.
4. The monthly reviews and CIG audits.
5. Various equivalence issues were discussed.

Assurances were given by New Zealand officials to address deficiencies noted on the basis that outstanding issues such as ASURE and those noted in this report would be the subject of further dialogue between FSIS and MAF FAA. At the time this report was written, MAF FAA had been incorporated into the New Zealand Food Safety Authority and continues to fulfill the role of competent authority.

CONCLUSION

The inspection system of New Zealand was found to have effective controls to ensure that product destined for export to the United States was produced under conditions equivalent to those which FSIS requires in domestic establishments. Thirteen establishments were audited. The deficiencies encountered during the on-site audits in the establishments were adequately addressed to the auditor's satisfaction.

Suresh P. Singh, D.V.M., Ph.D. (Signed) *Suresh P. Singh, D.V.M., Ph.D.*
International Audit Staff Officer

ATTACHMENTS

A. Data collection instrument for SSOP.
B. Data collection instrument for HACCP programs
C. Data collection instrument for *E. coli* testing
D. Data collection instrument for *Salmonella* testing
E. Laboratory Audit Form
F. Individual Foreign Establishment Audit Forms
G. Written Foreign Country's Response to the Draft Final Audit Report

Attachment A

Data Collection Instrument for SSOPs

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for SSOPs were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument contained the following statements:

1. The establishment has a written SSOP program.
2. The procedure addresses pre-operational sanitation.
3. The procedure addresses operational sanitation.
4. The pre-operational procedures address (at a minimum) the cleaning of food-contact surfaces of facilities, equipment, and utensils.
5. The procedure indicates the frequency of the tasks.
6. The procedure identifies the individuals responsible for implementing and maintaining the activities.
7. The records of these procedures and any corrective action taken are being maintained on a daily basis.
8. The procedure is dated and signed by the person with overall on-site authority.

The results of these evaluations were as follows:

Est. #	1.Written program addressed	2. Pre-op sanitation addressed	3. Oper. Sanitation addressed	4. Contact surfaces addressed	5. Fre-quency addressed	6. Respons-ible indiv. Identified	7. Docu-mentation done daily	8. Dated and signed
15	√	√	√	√	√	√	√	√
32	√	√	√	√	√	√	√	√
34	√	√	√	√	√	√	√	√
42	√	√	√	√	√	√	No	√
52	√	√	√	√	√	√	√	√
70	√	√	√	√	√	√	√	√
86	√	√	√	√	√	√	No	√
117	√	√	√	√	√	√	√	√
119	√	√	√	√	√	√	√	√
173	√	√	√	√	√	√	√	√
353	√	√	√	√	√	√	√	√
490	√	√	√	√	√	√	√	√
504	√	√	√	√	√	√	√	√

In establishment 42 and 86 corrective actions were not documented daily.

Documentation was also audited from the following establishments that were not visited on-site, during the centralized document audit:

09	√	√	√	√	√	√	√	√
17	√	√	√	√	√	√	√	√
26	√	√	√	√	√	√	√	√
Ph27	√	√	√	√	√	√	√	√
Ph30	√	√	√	√	√	√	√	√
47	√	√	√	√	√	√	No	√
58	√	√	√	√	√	√	√	√
64	√	√	√	√	√	√	No	√
78	√	√	√	√	√	√	√	√
82	√	√	√	√	√	√	√	√
100	√	√	√	√	√	√	√	√
103	√	√	√	√	√	√	√	√
124	√	√	√	√	√	√	√	√
367	√	√	√	√	√	√	√	√

In Establishments 47 and 64, corrective actions and preventive actions were not documented daily and not verified by the MAF Verification agency.

Attachment B

Data Collection Instrument for HACCP Programs

Each of the establishments approved to export meat products to the U.S. was required to have developed and implemented a Hazard Analysis – Critical Control Point (HACCP) system. Each of these systems was evaluated according to the criteria employed in the U.S. domestic inspection program. The data collection instrument included the following statements:

1. The establishment has a flow chart that describes the process steps and product flow.
2. The establishment has conducted a hazard analysis that includes food safety hazards likely to occur.
3. The analysis includes the intended use of or the consumers of the finished product(s).
4. There is a written HACCP plan for each product where the hazard analysis revealed one or more food safety hazard(s) reasonably likely to occur.
5. All hazards identified in the analysis are included in the HACCP plan; the plan lists a CCP for each food safety hazard identified.
6. The HACCP plan specifies critical limits, monitoring procedures, and the monitoring frequency performed for each CCP.
7. The plan describes corrective actions taken when a critical limit is exceeded.
8. The HACCP plan was validated using multiple monitoring results.
9. The HACCP plan lists the establishment's procedures to verify that the plan is being effectively implemented and functioning and the frequency for these procedures.
10. The HACCP plan's record-keeping system documents the monitoring of CCPs and/or includes records with actual values and observations.
11. The HACCP plan is dated and signed by a responsible establishment official.
12. The establishment is performing and documenting pre-shipment document reviews as required.

The results of these evaluations were as follows:

Est. #	1. Flow diagram	2. Haz. analysis –all ID'ed	3. Use & users includ-ed	4. Plan for each hazard	5. CCPs for all hazards	6. Mon-itoring is spec-ified	7. Corr. actions are des-cribed	8. Plan valida-ted	9. Ade-quate verific. Procedu res	10. Ade-quate docu-menta-tion	11. Dat-ed and signed	12. Pre-ship-ment doc. re-views
15	√	√	√	√	No	√	√	√	√	√	√	√
32	√	√	√	√	√	√	√	No	No	√	√	√
34	√	√	√	√	√	√	√	√	√	√	√	√
42	√	√	√	√	No	√	√	√	√	√	√	√
52	√	√	√	√	√	√	√	√	√	√	√	√
70	√	√	√	√	No	√	√	No	No	√	√	√
86	√	√	√	√	No	√	√	No	No	√	√	√
117	√	√	√	√	No	√	√	√	√	√	√	√
119	√	√	√	√	√	√	√	√	√	√	√	√
173	√	√	√	√	√	√	√	√	√	√	√	√
353	√	√	√	√	√	√	√	√	√	√	√	√
490	√	√	√	√	√	√	√	√	√	√	√	√
504	√	√	√	√	√	√	√	√	√	√	√	√

In Establishments ME15, 42, 70, 86, and 117, fecal contamination was not addressed in HACCP plans. Validation and verification of HACCP plans were not recorded adequately in Establishments 32, 70 and 86.

Documentation was also audited from the following establishments that were not visited on-site, during the centralized document audit:

Est. #	1. Flow diagram	2. Haz. analysis –all ID'ed	3. Use & users included	4. Plan for each hazard	5. CCPs for all hazards	6. Monitoring is specified	7. Corr. actions are described	8. Plan validated	9. Adequate verific. procedures	10. Adequate documentation	11. Dated and signed	12. Pre-shipment doc. reviews
09	√	√	√	√	√	√	√	√	√	√	√	√
17	√	√	√	√	√	√	√	√	√	√	√	√
26	√	√	√	√	√	√	√	√	√	√	√	√
27	√	√	√	√	√	√	√	√	√	√	√	No
Ph30	No	√	√	√	√	√	√	√	√	√	√	√
47	√	√	√	√	√	√	√	√	√	√	√	√
58	√	√	√	√	√	√	√	√	√	√	√	√
64	No	√	√	√	No	√	√	√	√	√	√	No
78	√	√	√	√	√	√	√	√	√	√	√	√
82	No	√	√	√	No	√	√	√	√	√	√	√
100	√	√	√	√	No	√	√	√	√	√	√	No
103	√	√	√	√	√	√	√	√	√	√	√	√
124	No	√	√	√	√	√	√	√	√	√	√	√
367	√	√	√	√	√	√	√	√	√	√	√	√

Flow charts in HACCP plan did not include all process steps in Establishments 30, 64, 82 and 124. Hazard Analysis did not include microbiological food safety hazard of fecal contamination in Establishments 64, 82 and 100. They were addressed as procedures and techniques controlled by Technical Directive. No pre-shipment document reviews were found for Establishments 27, 64 and 100.

Attachment C

Data Collection Instrument for Generic *E. coli* Testing

Each establishment was evaluated to determine if the basic FSIS regulatory requirements for generic *E. coli* testing were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument contained the following statements:

1. The establishment has a written procedure for testing for generic *E. coli.*
2. The procedure designates the employee(s) responsible to collect the samples.
3. The procedure designates the establishment location for sample collecting.
4. The sample collection is done on the predominant species being slaughtered.
5. The sampling is done at the frequency specified in the procedure.
6. The proper carcass site(s) and/or collection methodology (sponge or excision) is/are being used for sampling.
7. The carcass selection is following the random method specified in the procedure or is being taken randomly.
8. The laboratory is analyzing the sample using an AOAC Official Method or an equivalent method.
9. The results of the tests are being recorded on a process control chart showing the most recent test results.
10. The test results are being maintained for at least 12 months.

Est. #	1.Written procedure	2. Sampler designated	3.Sampling location given	4. Predomin. Species sampled	5. Sampling at the req'd freq.	6. Proper site or method	7. Sampling is random	8. Using AOAC method	9. Chart or graph of results	10. Results are kept at least 1 yr
15	√	√	√	√	√	√	√	√	√	√
32	√	√	√	√	√	√	√	√	√	√
34	√	√	√	√	√	√	√	√	√	√
42	√	√	√	√	√	√	√	√	√	√
52	√	√	√	√	√	√	√	√	√	√
70	√	√	√	√	√	√	√	√	√	√
86	√	√	√	√	√	√	√	√	√	√
117	√	√	√	√	√	√	√	√	√	√
119	√	√	√	√	√	√	√	√	√	√

Documentation was also audited from the following establishments that were not visited on-site, during the centralized document audit:

09	√	√	√	√	√	√	√	√	√	√
17	√	√	√	√	√	√	√	√	√	√
26	√	√	√	√	√	√	√	√	√	√
47	√	√	√	√	√	√	√	√	√	√
58	√	√	√	√	√	√	√	√	√	√
64	√	√	√	√	√	√	√	√	No	√
78	√	√	√	√	√	√	√	√	√	√
82	√	√	√	√	√	√	√	√	√	√
100	√	√	√	√	√	√	√	√	√	√
103	√	√	√	√	√	√	√	√	√	√
124	√	√	√	√	√	√	√	√	√	√

Attachment D

Data Collection Instrument for *Salmonella* testing

Each slaughter establishment was evaluated to determine if the basic FSIS regulatory requirements for *Salmonella* testing were met, according to the criteria employed in the U.S. domestic inspection program. The data collection instrument included the following statements:

1. Salmonella testing is being done in this establishment.

2. Carcasses are being sampled.

3. Ground product is being sampled.

4. The samples are being taken randomly.

5. The proper carcass site(s) and/or collection of proper product (carcass or ground) is being used for sampling.

6. Establishments in violation are t being allowed to continue operations.

The results of these evaluations were as follows:

Est. #	*1. Testing as required*	*2. Carcasses are sampled*	3. Ground product is sampled	4. Samples are taken randomly	5. Proper site and/or proper prod.	6. Violative est's stop operations
15	√	√	N/A	√	√	√
32	√	√	N/A	√	√	√
34	√	√	N/A	√	√	√
42	√	√	N/A	√	√	√
52	√	√	N/A	√	√	√
70	√	√	N/A	√	√	√
86	√	√	N/A	√	√	√
117	√	√	N/A	√	√	√
119	√	√	N/A	√	√	√

Documentation was also audited from the following establishments that were t visited on-site, during the centralized document audit:

09	√	√	N/A	√	√	√
17	√	√	N/A	√	√	√
26	√	√	N/A	√	√	√
47	√	√	N/A	√	√	√
58	√	√	N/A	√	√	√
64	√	√	N/A	√	√	√
78	√	√	N/A	√	√	√
82	√	√	N/A	√	√	√
100	√	√	N/A	√	√	√
103	√	√	N/A	√	√	√
124	√	√	N/A	√	√	√